

MIXING CENTRE FOR CONTINUOUS DELIVERY OF CELLULAR CONCRETE

Type: MSX 1000

Data Sheet No. 011.3

A machine for continuous making and delivery of lightweight concrete (LC) filled with technical foam – **foam concrete (PBG)** and/or with polystyrene beads — **polystyrene concrete (PsB)**.

It is designed mainly for casting walls and roofs/ceilings in-situ and for manufacturing prefabricated products, e.g. panels, blocks, etc..

Individual parts of the equipment compose a compact unit with minimized demands on space.

A manufacturing assembly consists of MSX1000 with at least two conveyors for dry components, e.g. cement and sand. The control - automatic switching on and off - of silos and conveyors and their vibrators is provided through their power connection to the switchboard (sockets) of MSX1000 Control Centre (CC).

Batching of all components and a mixing process are controlled by a computer control unit.

The horizontal shaft positive-action blender with a special agitator is designed for dry mixing of dry components. Once uniformly mixed, the LC is discharged through a discharge gate actuated pneumatically into the hopper of a built-in screw pump located beneath the mixer. While LC mortar is pumped through a hose into moulds, another batch of LC is dosed and mixed in the blender.

Use:

The machine is designed for LC production directly on site or in a factory and can operate:

- In automatic mode in cooperation with conveyors and silos and bunkers
- In automatic or semi-automatic mode with manual loading of dry components that are fed into the unit feed hopper by means of screw and belt conveyors

Main parts: Base Frame, Control Centre, Mixer, LC Delivery Pump, Water Tank, Water Pump, Foam Generator FGX (built-in or standalone), and Chassis.

The Control Centre consists of a computer control unit, an electronic calibrated scale under the mixer, water meter, and a central box with fusing and protection of electric drives of connected equipment.

- Contains:**
- System of accurate re-dosing of all input raw materials, i.e. dry and liquid ones including technical foam
 - Mixing process control system – eliminating impact of operators on a mixing process
 - Weighing calibrated system for dry components
 - Foam making concentrate automatic dosing system
 - System of protection of connected equipment electric drives

Specification:

Installed power:	from 40 kVA (up to 55 kVA incl. conveyors); prot. class IP 65 (water)
Production capacity (Production cycle time):	up to 19* m ³ of PBG / hour (from 3.2* min per 1 m ³ of PBG)
Input component dosing accuracy:	± 1 %
Mixer volume (effective) / Mixer drive:	1100 (1000) l / 15 kW
Worm Pump capacity - 2L8, 11kW / Pmax:	up to 19 m ³ of PBG hour / 6-8 bar
Pump hopper volume:	1100 l
Aggregates:	up to 8 mm
Foam generator capacity (concentration range):	8 / 10 l/sec at a foam density of 40-100 g/l (from 1 to 5 %)
Water tank volume:	200 l
Length of delivery hoses Js 50 mm:	up to 60 m without vertical difference
Weight (with Foam Generator FGX):	from 2 950 (from 3 250) kg
Weight of Foam Generator FGX:	from 300 kg
Main dimensions - l x w x h - without FGX:	4 820 x 1 520 x 2 400 mm
Main dimensions of FGX – l x w x h (with wheels):	1210 x 1160 x 1380 (1670) mm
Level of charging hopper above ground::	2 400 mm

The MSX1000 equipment is designed to be firmly anchored to the floor, or assembled on a rigid axle with tyres.

* mainly depends on dosing speed of dry components and on kind of the installed pump drive; the maximum accessible output equals to pumping capacity of the built-in pump

Transport: By truck or behind a vehicle with towing capacity min. 3000 kg.
Accessories for MSX1000 and FGX are carried in a towing vehicle.

Operation: Operating ambient temperature: 0 - 40 °C
Power supply: 400 V, 50 Hz, 5 pin connection (CEE-coupling), fusing (C) min. 64 A
Water supply: min. 3/4" with capacity min. 1.5 l/sec
Required hardened surface: about 6 x 10 m incl. drainage

Safety: The equipment MSX 1000 is accredited by EU safety rules and standards.
Electric installation is in a five-pin version with a current protective switch.

